



## ENERGY STAR *Small Business*<sup>SM</sup>. . .

# Energy Efficiency Protects Your Business

*Save Energy Dollars And Mitigate Damage With Dual-Purpose Technologies*

## EFFICIENCY'S SURPRISING IMPACT

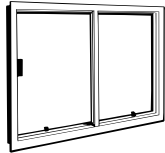
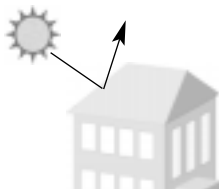
**W**hen a natural disaster or other occurrence interrupts cash flow, having the lowest possible operating cost can make the difference in business survival. Further, many energy-saving technologies can help prevent or reduce building damage. Surprised? The right energy-efficiency upgrade can:

- Mitigate the effects of natural disasters such as wind and water damage.
- Prevent avoidable building damage such as frozen pipes or fires.
- Help sustain your business during an extended power outage.
- Improve your cash flow for use in investing in traditional disaster prevention mechanisms.
- Improve your cash flow immediately after a disaster.

Using less energy in your business reduces the air pollution released by power plants. Many scientists think air pollution increases severe weather patterns, so energy-efficiency investments may even help reduce climate change-related natural disasters!

## DUAL-IMPACT TECHNOLOGIES

Consider some of these ideas to cut your energy costs and protect your business.

Technology Employed	Energy Savings	Damage Mitigation <sup>1</sup>
<b>Energy-Efficient Windows</b> Multi-glazings Low-emissivity coatings 	Windows that prevent unwanted heat gains in the summer and losses in the winter yet allow a lot of visible light to pass through are great for saving energy.	During a fire, energy-efficient windows provide an extra level of security against shattering. Shattered windows allow air flow to increase and provoke the spread of fire.
<b>Light-Colored Roofs And Siding</b> 	Light exterior surfaces reflect heat that otherwise would build up inside your building.  Reduced summer heat loads mean lower air conditioning bills.	Buildings with light exterior surfaces are safer for occupants during urban heat catastrophes.

## REST ASSURED

*Some damage to your business, whether from natural disasters or an everyday occurrence, may be mitigated through the proper use of energy efficiency. Typical business interruptions, and the inevitable loss of profit, make energy efficiency more than just a building operating cost issue. It can become a mechanism for sustaining cash flow and protecting your business!*

## Dual-Impact Technologies (continued)

## More Information

**FEMA's Project Impact** and **EPA's ENERGY STAR Small Business™** service have teamed up to explore the link between energy efficiency and disaster mitigation. Project Impact works within communities to plan for natural disaster resistance, while ENERGY STAR Small Business helps cut energy costs and prevent pollution by providing technical assistance on facility design and equipment purchases. These two initiatives complement each other and give small businesses highly beneficial returns in times of emergency.

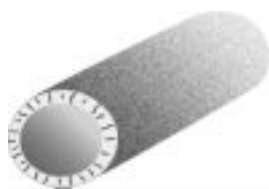


**For more information on how your business can save energy through ENERGY STAR Small Business, please call our toll-free hot-line at 1-888-STARYES or visit our Web site at [www.epa.gov/smallbiz](http://www.epa.gov/smallbiz). For valuable information about FEMA's Project Impact, visit [www.fema.gov/impact](http://www.fema.gov/impact).**



### Technology Employed

**Insulated Water Pipes**  
Bats, rolls, or blankets of fiberglass or rock wool



**CFL Torchier Lamps**  
Compact fluorescent technology (CFL)

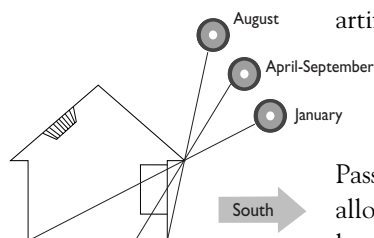


During a power outage, some efficiency measures help your business stay open when you have no back-up power.

### Efficient Food Freezers



### Daylighting



### Passive Heating And Cooling

### Energy Savings

Insulating your hot water pipes in unconditioned areas can greatly reduce the rate of heat loss throughout your building. Your business compensates for this loss by either burning more fuel or buying more electricity. Jacket insulation for your hot water tank is also a good idea.

CFL lights use much less energy to produce the same amount of light as existing halogen lights. CFL lights also give off less heat, decreasing your air conditioning costs.

The refrigerator/freezer is a very high consumer of energy. Energy-efficient freezers utilize **better insulation** and improved compressor efficiencies.

Daylighting in buildings lessens the need to pay for artificial light.

Passive heating and cooling allows for lower building loads. Lower loads mean you can use smaller units, which cost less.

### Damage Mitigation<sup>1</sup>

During severe winters, uninsulated pipes can freeze and rupture, causing water-damage losses. Pipe insulation is a simple energy retrofit that reduces the likelihood of freeze damage.

Halogen torchieres operate at very high temperatures and have been known to cause fires. CFL torchieres are much safer because of their cooler operating temperatures.

Having a well-insulated freezer means that when the power goes out, it will take longer for your food to go bad.

Daylit buildings remain safe and operable (from a lighting standpoint) during a daytime blackout.

Passively heated/cooled buildings remain habitable during extreme weather conditions.

<sup>1</sup>Evan Mills and Ivo Knoepfel, *Energy Efficiency Options for Insurance Loss Prevention*, Lawrence Berkeley National Laboratory, 1997.

Lawrence Berkeley Labs has conducted technical research into this extremely important issue. For more detailed information: <http://eetd.lbl.gov/insurance>